

REMARKS

Claims 1-9 and 11-20 are pending. Claim 8 is amended hereby. A marked-up version showing the changes made by the present amendment is attached hereto as "**Version with markings to show changes made.**"

Claim 8 was objected to since the second occurrence of "a third insulating layer" should be – the third insulating layer –. Claim 8 has been so amended.

Claims 1-9 and 20 were rejected under 35 U.S.C. §102(e) as being anticipated by Taniguchi et al. This rejection is respectfully traversed.

Taniguchi et al. is assigned to the same assignee as the present application. Taniguchi et al. discloses an insulating layer 2 which is formed from a composition of $\text{HSiO}_{3/2}$. The Examiner argues that this layer has an H content of not less than 15.4 atom %. It is presumed that the Examiner arrives at this calculation based upon the teachings of the present specification in the paragraph bridging pages 7 and 8. It appears that it is the Examiner's understanding that a layer having the composition $\text{HSiO}_{1.5}$ would necessarily have an H content of not less than 15.4 atom %.

The Examiner is incorrect as the H content depends upon the curing cross linking reaction. In the paragraph bridging pages 7 and 8 of the specification, a description is provided with respect to a SiH content of 50%.

As explained in the second full paragraph on page 18 of the specification, the SiH content in the HSQ film is defined by the ratio of the SiH content after curing to the SiH content immediately

U.S. Patent Application Serial No. 09/473,988

after coating. This content is obtained by measuring the relative value of the spectrum of the HSQ film.

Accordingly, Taniguchi et al does not teach the claimed H content of not less than 15.4 atom %, or the claimed threshold at which a degassing amount from said first insulating layer abruptly decreases upon a slight increase in the SiH content in the relation between the SiH content of said first insulating layer and said degassing amount from said first insulating layer. Since Taniguchi et al does not teach these features, the anticipation rejection should not stand. Instead, the Examiner should have been required to make an obviousness rejection. However, since the present application and Taniguchi et al are commonly assigned, such a rejection is not permitted under 35 U.S.C. §102(e) / 103(c).

For at least the foregoing reasons, the presently claimed invention distinguishes over the cited art and defines patentable subject matter. Favorable reconsideration is earnestly solicited.

Should the Examiner deem that any further action by applicants would be desirable to place the application in better condition for allowance, the Examiner is encouraged to telephone applicants' undersigned attorney.

U.S. Patent Application Serial No. 09/473,988

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, WESTERMAN & HATTORI, LLP



Stephen G. Adrian
Attorney for Applicants
Reg. No. 32,878

SGA/arf

Atty. Docket No. **991493**
Suite 1000, 1725 K Street, N.W.
Washington, D.C. 20006
(202) 659-2930

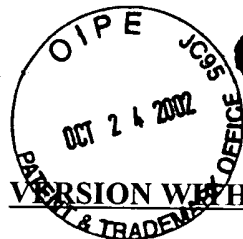


23850

PATENT TRADEMARK OFFICE

Enclosure: Version with markings to show changes made

H:\HOMENAYNAY\991\991493 Amendment 10 24 02



VERSION WITH MARKINGS TO SHOW CHANGES MADE 09/473,988

IN THE CLAIMS:

Claim 8 has been amended as follows:

8. (Five Times Amended) A semiconductor device comprising a semiconductor element formed on a semiconductor substrate, and a multilayer interconnection structure formed over said semiconductor element and electrically connected to said semiconductor element,

wherein said multilayered interconnection structure is an interconnection structure of at least two layers in which a conductive film or a lower interconnection layer and an upper interconnection layer formed on an insulating interlayer are electrically connected through a contact hole formed in said insulating interlayer,

said insulating interlayer includes:

a first insulating layer of a composition containing SiH; and

a second insulating layer formed on said first insulating layer; and

a third insulating layer formed between said conductive film and said first insulating layer,

said first insulating layer has an H content of not less than 15.4 atom% in the composition, and has been formed to cover said conductive film or the lower interconnection layer with [a] the third insulating layer being interposed therebetween, and

said second insulating layer has a multilayer structure made up from layers of the same material.

RECEIVED
OCT 25 2002
TECHNOLOGY CENTER 2800